

# FE209

## WIRE DRAG

Diagram No. 1257-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

### DESCRIPTIVE REPORT

Type of Survey .. Wire Drag .....

Field No. .... R/H-40-1-70 .....

Registry No. .... FE-209WD .....

#### LOCALITY

State ..... Florida .....

General Locality Tampa Bay .....

Sublocality .... West of Egmont Key .....

19 70

CHIEF OF PARTY

LCDR C. Andreasen .....

#### LIBRARY & ARCHIVES

DATE ..... April 2, 1971 .....

☆U.S. GOV. PRINTING OFFICE: 1985-566-054

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as:

FE No.1, 1970

FE209  
WIRE DRAG

# FE No. 1 1970

## WIRE DRAG

Diag. Cht. No. 1257

ENVIRONMENTAL SCIENCE SERVICE ADMINISTRATION  
U.S. DEPARTMENT OF COMMERCE  
NATIONAL SYSTEM OF ISLANDS AND GEODETIC SURVEY

### DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. RH-40-1-70 wp Office No. None

#### LOCALITY

State Florida

General locality Tampa Bay, Florida

Locality West of Egmont Key

19 70

#### CHIEF OF PARTY

LCDR CHRISTIAN ANDREASEN

#### LIBRARY & ARCHIVES

DATE 4/2/71

FE No. 1  
1970  
WIRE DRAG

## HYDROGRAPHIC TITLE SHEET

NONE

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form,  
filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

RH 40-1-70WD

State FLORIDAGeneral locality APPROACHES TO TAMPA BAYLocality WEST OF EDMONT KEYScale 1:40,000 Date of survey Feb. 5 to Mar. 2, 1970Instructions dated Dec. 30, 1969 Project No. OPR-479Vessel NOAA SHIPS RUDE & HECKChief of party CHRISTIAN ANDREASENSurveyed by SHIPS OFFICERSSoundings taken by echo sounder, hand lead, pole NA WIRE DRAG SURVEY

Graphic record scaled by \_\_\_\_\_

Graphic record checked by \_\_\_\_\_

Protracted by GUY F. TREFETHEN (VERIFICATION BRANCH, AMC)

Drag Strips by \_\_\_\_\_

~~Soundings protracted by~~ GUY F. TREFETHENSoundings in ~~XXXXX~~ feet at MLW ~~MLW~~

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

APPROVAL SHEET

The attached report, records, and plotting sheets have been inspected by me and are approved.

*Christian Andreasen*  
Christian Andreasen  
LCDR USESSA  
Commanding Officer  
USC&GSS RUDE & HECK

DESCRIPTIVE REPORT  
TO ACCOMPANY  
WIRE DRAG INVESTIGATION  
PROJECT OPR-479

TAMPA BAY, FLORIDA

1970

USC&GS Ships RUDE & HECK

LCDR Christian Andreassen - Chief of Party

A. PROJECT

Project instructions dated 30 December 1969. Said instructions; paragraph 2, states "...a brief stop shall be made at Tampa, Florida, in order to investigate the reported obstruction at 27° 35.0' N, 82° 53.7'W."

B. AREA SURVEYED & DATES

The wire dragged area is a one mile radius circle about the obstruction at 27° 35.0' N, 82° 53.7'W shown on C&GS Chart 586. Survey operations were conducted in accordance with project instructions and publication 20-1, Wire Drag Manual.

Wire drag operations commenced on 5 February 1970. This followed a short repair period at Hendry Shipyard. The ships were damaged on 27 January 1970 upon arrival at Tampa Bay. Operations concluded on 2 March 1970 with the project completed.

C. VESSELS & EQUIPMENT

The ships RUDE & HECK acted as guide and end vessels respectively, during the entire operation. The RUDE & HECK launches, RU-3 and HE-3, and skiffs, RU-1 and HE-1, served as the tender.

<u>VESSEL</u>	<u>COLOR</u>	
RUDE	Blue	Guide Vessel
HECK	Red	End Vessel
RU-3	Purple	RUDE Launch
HE-3	Green	HECK Launch
RU-1	Orange	RUDE Skiff
HE-1	Brown	HECK Skiff

*used for all drag work*

$\frac{3}{16}$ " = standard

Standard wire drag equipment was used. The wire is  $\frac{1}{4}$ " one by nineteen stainless steel wire. Standard wire drag buoys were used. Plain toggles were weighted with  $\frac{1}{2}$  inch and  $\frac{3}{8}$  inch shackles. Ribbed toggles were weighted with  $\frac{1}{2}$  inch,  $\frac{7}{16}$ " and  $\frac{3}{8}$ " shackles. Toggles were placed every 50 feet to maintain nearly neutral buoyancy of the drag.

#### Sounding Equipment

RUDE	DE-723	s/n	1275
HECK	DE-723	s/n	1273
RU-3	DE-723	s/n	1271
HE-3	DE-723	s/n	1283

#### D. SMOOTH SHEET

In accordance with instructions from the Atlantic Marine Center the ships used C&GS Chart 586 as a boat sheet. The ships personnel plotted daily drag strips on tracing overlays. Upon completion of the project, personnel transferred all work to two boat sheets. One boat sheet has south to north drag strips plotted. The second boat sheet has north to south drag strips plotted.

In accordance with instructions from the Atlantic Marine Center, the ships will transfer all wire drag data to ~~the~~ *PROCESSING* ~~office~~ *Branch, AMC.* office for smooth plotting.

#### E. CONTROL

Electronic and electronic-visual control were used.

Electronic-visual control constituted a reading from one operable raydist unit and a visual arc. Raydist equipment failure forced this type of control. Electronic-visual control was used on "G" day. This day did not cover any area not covered by other drag strips. *"G" day not plotted -*

#### F. SHORELINE

All wire drag plots on C&GS Chart 586 making the shoreline self evident.

#### G. TIDAL REDUCERS

Preliminary reduction of each day's data was made using predicted tides from St. Petersburg, Florida.

Site 3074, Egmont Key, Egmont Channel is closest to the item investigated. Tides were corrected for high water - 2 hours 27 minutes, and for low water - 2 hours 24 minutes.

No portable guages were installed.

Upon receipt of actual tides from Rockville, Maryland tide reducers were entered in the wire drag volumes.

#### H. CROSSLINES

Crosslines were not used in this wire drag operation.

#### I. JUNCTIONS

The wire drag survey formed no junctions with other surveys.

#### J. SPLITS

The project area was wire dragged without splits. Drag strip overlap exceeded 600' in all cases.

#### K. GROUNDINGS AND SHOALS

See attachment.

#### L. DISCREPANCIES AND COMPARISON WITH PRIOR SURVEYS AND CHARTS

The project instructions indicated that the area should be dragged within two feet of the general bottom. Refer to the Groundings and Shoals section. C&GS Chart 586 indicates a minimum depth of 32 feet within the one mile circle project limits. Numerous groundings occurred with effective depths shoaler than this indicated 32 foot shoal. The wire drag survey indicates chart 586 is deficient and should be updated.

#### M. CURRENTS

Drag strips were run in north to south and south to north directions. There was little effect on the drag caused by currents.

#### N. ADEQUACY OF SURVEY

This survey is considered adequate. It disproves the reported obstruction but shows the area is shoaler than Chart 586 indicates.

#### O. AIDS TO NAVIGATION

Aids to navigation both fixed and floating are adequate for the area. The E Int 4 Sec 134 ft. Priv. maintd. light at 27° 45' 23" N., 82° 45' 33" W. is no longer operable.

## ATTACHMENT I

OPR 479  
TAMPA BAY  
WEST OF EGMONT KEY

DATE	DAY LETTER	VOLUME NUMBER	NAUTICAL MILES	RUDE & HECK NO. OF POS.	TENDER SOUNDINGS & POSITIONS
5Feb70	A	I	2.4	156	
6Feb70	B	I	3.2	90	
9Feb70	C	I	4.0	102	
11Feb70	D	I	1.6	42	
12Feb70	E	II	1.8	58	
13Feb70	F	II	4.7	120	
18Feb70	G	II	0.8	24	
19Feb70	H	II	2.7	70	
20Feb70	J	II	1.4	36	
24Feb70	K	III	5.1	128	
25Feb70	L	III	2.5	42	
2Mar70	M	III	3.2	66	
	<u>12</u>	<u>3</u>	<u>33.4</u>	<u>934</u>	

Area 5.8 square nautical miles.

## ATTACHMENT II

## LIST OF SIGNALS

*Visual control was not used in  
smooth plot - H. L. P.*

<u>NAME</u>	<u>SOURCE</u>	
ACE	LONG KEY TANK	C&GS Chart 586
BIG	U.S. V.A. HOTEL, HOSPITAL	C&GS Chart 586
COO	PASS-A-GRILLE BEACH TANK	C&GS Chart 586
DIM	MULLET KEY TANK	C&GS Chart 586
END	TAMPA BAY SUNSHINE SKYWAY NW TOWER LIGHT 1954	G-10679
FAR	TAMPA BAY SUNSHINE SKYWAY SW TOWER LIGHT 1954	G-10679
GUS	EGMONT CHANNEL RANGE REAR LIGHT 1957	G-11842
HEX	EGMONT CHANNEL RANGE FRONT LIGHT 1957	G-11842
IVY	EGMONT KEY LIGHTHOUSE REAR RANGE 1873	G-3037
RED RAYDIST 1970	USC&GSS RUDE & HECK Raydist site established 1970	
GREEN RAYDIST 1970	USC&GSS RUDE & HECK Raydist site established 1970	

## ATTACHMENT III

RAYDIST REPORT - TAMPA BAY - OPR-479

GENERAL

The Ships RUDE AND HECK operate under the unique situation of dual party operation where the mobile units frequently are required to be within close proximity of one another. The ships are normally docked outboard of one another or within one ship length of each other. Dockside calibration was attempted on the Ship HECK with very little success. Experience with this type of calibration again showed it to be somewhat unreliable. This unreliability could have been caused by the close positioning of the ships and/or the electrical noise at the pier. The only way of assuring a true calibration of the field work is to calibrate by sextant fix, fixed aid, or buoy calibrate. In conclusion, since dock space is usually some distance from the working grounds and sometimes in areas of electrical noise, it has been normal procedure to calibrate in the working grounds by one of the other methods with the ships separated by a satisfactory distance.

During the TAMPA BAY Project, the HECK frequency was 3300.400 kc; and the RUDE frequency, 3300.465 kc. Between the 1969 and 1970 field seasons, the RUDE frequency was shifted from 3300.425 kc to 3300.465 kc. This change improved the overall operation since no drift or interference of ship station frequencies occurred during entire project.

Overall operation of the Raydist during the TAMPA BAY Project was satisfactory, with less than 24 hours of "down time" attributed to the Raydist. Most of this down time was not actually lost because the vessels wire dragged on "G" DAY using a visual angle and one raydist shore station reading.

EQUIPMENT

Ship HECK	navigator	s/n	48	
Ship HECK	transmitter	s/n	28	
Ship RUDE	navigator	s/n	49	
Ship RUDE	transmitter	s/n	25	
RED Station		s/n	34	used from 5 Feb. until 13 Feb.
GREEN Station		s/n	35	
RED Station (on loan from AMC)		s/n	69	used from 13 Feb. until 2 March

## ATTACHMENT IV

GROUNDINGS & SHOALS

*See Verification Branch  
Smooth plotting overlays*

<u>DAY</u>	<u>LAT &amp; LONG</u>		<u>CLEARED DEPTH</u>
1. A 5 Feb. 70	approx. 27°35'10"N 82°52'30"W	"N" buoy topple. Day kept for statistics and not to be smooth plotted. Raydist lost over 10 lanes.	"B" day ✓ strip #2; 30' eff. depth
2. B 6 Feb. 70	27°35'22"N 82°52'52"W	Temporary hang near buoy #3. Divers below but slipped off of hang. (C&GS Chart 586 shows 36')	"C" day strip #2 to 32' "D" Day to 29' "E" day to 29'-30' "F" day strip #1 to 30'
3. C 9 Feb. 70	approx. 27°35'23"N 82°52'54"W	Numerous topples. Drag at 33' eff. depth in 36' of water by C&GS Chart 586. Drag set too deep. <i>586 Chart 586</i>	"H" day to 30' "B" day strip #2 to 30'-31'
4. C 9 Feb. 70	approx. 27°35'35"N 82°53'02"W	Numerous topples in 6-F portion of drag. 6-F also had excessive lift and is unacceptable. N-6 is good. <i>586 Chart 586</i>	"F" day strip #1 to 30' "K" day strip #1 to 34'-33'
5. D 11 Feb. 70	27°36'02"N 82°53'27"W	"N" buoy topple. Drag effective at 35'. Evidently sag in section because cleared to 38' effective. <i>586 Chart 586</i>	"K" day strip #1 to 35'-34'
6. E 12 Feb. 70	27°35'13"N 82°53'27"W	N, 1, & 2 buoys toppled much of drag strip.	"K" day strip #1 to 35'-34' 33' "D" day to 35'-29'

7. F 27°35'30"N Numerous topples (N-1); "K" day  
Strip #1 82°53'27"W✓ Drag set too deep; C&GS strip #1  
13 Feb. 70 Chart 586 shows 35'-40'; to 35'-33'.  
Drag depth was 35' effective. "D" day  
to 35'-29'.
8. F 27°35'22"N✓ #5 buoy topple. C&GS Chart 586 indicates "K" day  
Strip #2 82°54'27"W✓ 42 or more feet of Chart 34 strip #2  
13 Feb. 70 water. Drag at 37'- to 35'  
38' effective depth "M" day  
and had topples. to 35'
9. F 27°36'31"N✓ "N" buoy topple. Top- None - out-  
Strip #2 82°54'18"W✓ pled area well outside side project  
13 Feb. 70 1 mile circle project limits  
limits and never re-  
dragged. Drag was set  
too deep.
10. J 27°35'17"N✓ Hang at buoy #2. "L" day  
20 Feb. 70 82°54'42"W✓ Divers down- hung on to 34'-35'  
bottom. Dragging at "M" day  
35' effective depth to 35'  
in 44' by C&GS Chart  
586. In shifting RUDE  
towline from port to  
starboard side the drag  
apparently dropped and  
hung on the bottom
11. K 27°34'51"N✓ Temporary hang at #3 586 Chart 34 "L" day  
Strip #1 82°54'22"W✓ buoy; slipped off. to 34'  
24 Feb. 70 Drag effective to 34'; "M" day  
Cleared on "L" day to to 35'  
34' indicating there  
must have been sag on  
"K" day. Retain 34' depth  
to indicate a  
feature
12. L 27°36'28"N✓ Buoys N-3 toppled at None-out-  
25 Feb. 70 82°54'37"W✓ start of line. 42' side project  
of water by C&GS Chart limits.  
586. Effective depth  
was 35'. Area not re-  
dragged because outside  
project area.

Raydist Control G.P.'s for

RH 40-1-70 WD

Red Raydist 1970	27° 42' 30.345
	82° 44' 17.730

Green Raydist 1970	27° 36' 05.924
	82° 45' 40.790

"A"	N.P. Drag parted & difficult maneuverability of Drag. Area cleared on "B" & "H" day
"B"	N.P. Strip #1 Buys Grounding Area cleared on "B" strip #2, <del>"C" strip #2</del> , "F" strip #1,
"C"	N.P. Strip #1 & strip #2 Buys Topples & excessive Lift. Area covered "B" strip #2 & "H" day & "F" day
"D"	N.P. excessive Lift & Raydist Trouble Area covered on "K" day
"E"	N.P. excessive Lift & Raydist Trouble Area covered on "K" day
"F"	N.P. Strip #2 excessive Lift & Grounding Area covered on "K" day
"G"	N.P. excessive Lift. Area Covered on "H" day
"J"	N.P. Rejected by the Field.
"L"	N.P. Buys Topples Area covered on "M" day
"M"	N.P. Strip #1 Not Needed Covered on "H" day strip #2

AMC

ELECTRONIC CONTROLLED SURVEY  
(RANGE - RANGE)

RANGE ONE (R1)

LATITUDE 27 ° 42 ' 30.345 "

NAME Red Ray dist, 1970

LONGITUDE 82 ° 44 ' 17.730 "

RANGE TWO (R2)

LATITUDE 27 ° 36 ' 05.924 "

NAME Green Ray dist, 1970

LONGITUDE 82 ° 45 ' 40.790 "

TYPE OF CONTROL:

RAYDIST ☒, HI-FIX ☐, OTHER ☐

FREQUENCY 3300.432 KCS

LANE INTERVAL 100

PROJECT No. OPR-479

REQUESTED BY HLP.

H No. Nms

SHIP OR OFFICE Var. Br. AMC.

FIELD No. RH-40-1-70 WD-

DATE REQUIRED Jan

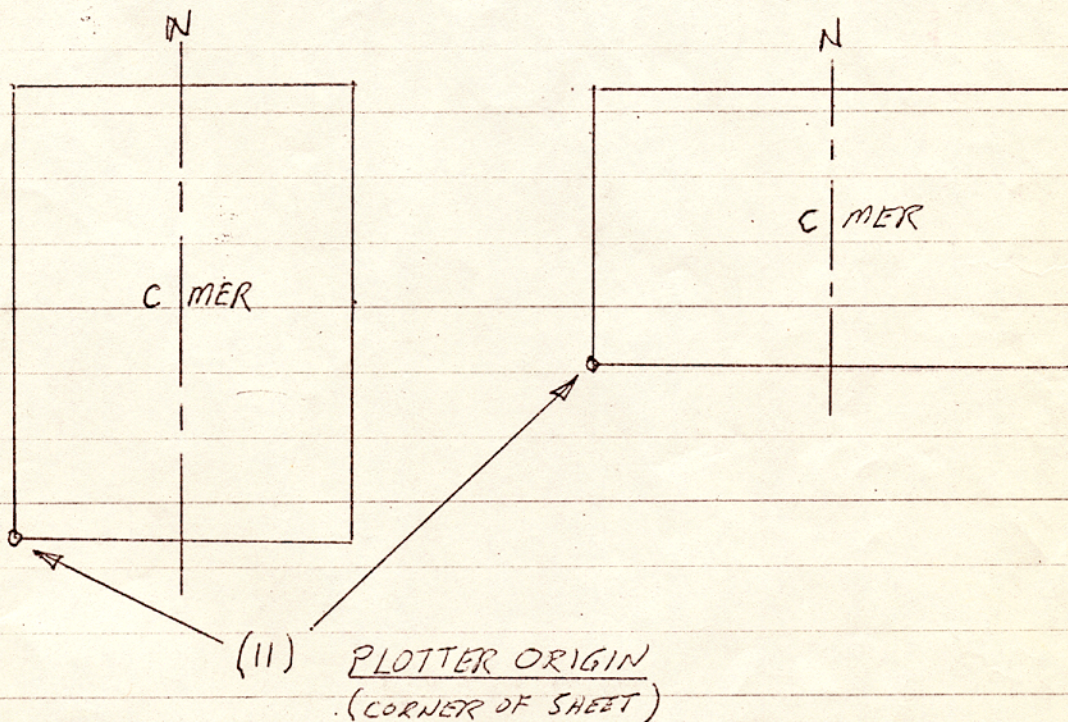
# AMC

## PARAMETERS FOR POLYCONIC PROJECTION

- (1) PROJECT NO. OPR-479 (4) REQUESTED BY H.L.P.  
(2) H No. Nms- (5) SHIP OR OFFICE Ver. Br. Amc.  
(3) FIELD NO. RH-40-1-70 WD- (6) DATE REQUIRED Soon at your convenience  
(7) CENTRAL MERIDIAN 82 ° 50 ' 00 "  
(8) SURVEY SCALE 1: 40,000  
(9) SIZE OF SHEET (CHECK ONE) 36 X 54 ☐ 36 X 60 ☐ OTHER 36 X 36  
(10) NYX, ORIENTATION OF SHEET (CHECK ONE)

NYX = 1 ☒

NYX = 0 ☐



LATITUDE 27 ° 28 ' 30 "

LONGITUDE 83 ° 01 ' 00 "

GRID INTERVAL 00 ° 02 ' 00 "

*Make projection on heaviest Mylar -*

# PRELIMINARY EVALUATION OF F.E. 1 (1970)

From CH L 600 (1968)

Damage to keel foot between marks 2' 6" and 6' 6"

Damage to plates from anchor lying on deck

On even keel draft found was 31' 9"

Damage was at depths 29' 3" to 25' 3"  
or with tide of 1 ft, at depths 28' 3" to 24' 3"

Wire drag coverage of 35' to 30'  
effective depth is adequate to  
disprove a shoaler feature in  
this vicinity.

Sabon Obstrcp  
Dated 4/1

Preliminary charting of the following  
depths indicated in p. 7 & 8  
of the D.R. may be considered:

	Seg	Lat	Long	
③	(1) 33'	27° 35' 23"	82° 54' 54"	⊗
⑤	(2) 35'	27° 36' 02"	82° 53' 27"	⊗
⑧	(3) 37'	27° 35' 22"	82° 54' 27"	⊗
⑪	(4) 34'	27° 34' 51"	82° 54' 22"	⊗
*	(5) 36'	27° 35' 33"	82° 53' 34"	⊗

\* From A2D sheet

These are provided without benefit of  
examining records because of deadline.

Replied to 586 Prof  
4/21/71

RH Carstens  
5/21/71

AMC  
VERIFICATION BRANCH

ADDENDUM  
To Accompany

WIRE DRAG FIELD INVESTIGATION RH 40-1-7OWD

GENERAL


Because of the small area investigated, this survey was treated as a field examination. A registry number was not requested.

Over a period of 12 letter days (A thru M), 17 drag strips were attempted. Eleven of these strips were not smooth plotted because of Raydist control problems, excessive lift, ineffective dragging, field rejections, etc. The field records and the field plots of these strips were carefully checked for symptoms of hangs which would indicate obstructions. While numerous groundings occurred the drag continued to tow and, as noted in paragraph "L", the grounds were indicative of shoaling in the area.

Six of the better drag strips were chosen for smooth plotting and it is believed they disprove the existence of any sizeable submerged obstruction within a radius of one mile of the charted position.

The lines smooth plotted are as follows:

24 to 45B, 3 to 27F, 1 to 35H, 2 to 35K, 36 to 64K and 14 to 33M



Hugh L. Proffitt  
Chief, Verification Br., AMC

Norfolk, Va.  
March 29, 1971

## GEOGRAPHIC NAMES

Survey No. F.E.No. 1-1970  
W.D.

Name on Survey

On Chart  
No.

No.	On previous survey	On U. S.
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U. S. quadrangle  
Maps

From local information

On local Maps

P. O. Guide or Map

or Map  
Rand McNally Atlas  
U. S.

U. S. Light List

[illegible]

# HYDROGRAPHIC SURVEY STATISTICS HYDROGRAPHIC SURVEY NO. F.E.No. 1 1970 W.D.

**RECORDS ACCOMPANYING SURVEY:** To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION			AMOUNT
SMOOTH SHEET & A&D Sheet		1	BOAT SHEETS			2
DESCRIPTIVE REPORT		1	OVERLAYS			6
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS						
VOLUMES	6					
BOXES						2

T-SHEET PRINTS (*List*)

SPECIAL REPORTS (*List*)

## OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS			
	PRE- VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
<b>TOTALS</b>				
PRE-VERIFICATION BY		BEGINNING DATE	ENDING DATE	
VERIFICATION BY		BEGINNING DATE	ENDING DATE	
REVIEW BY		BEGINNING DATE	ENDING DATE	

# VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H F.E.No. 1-1970 W.D.

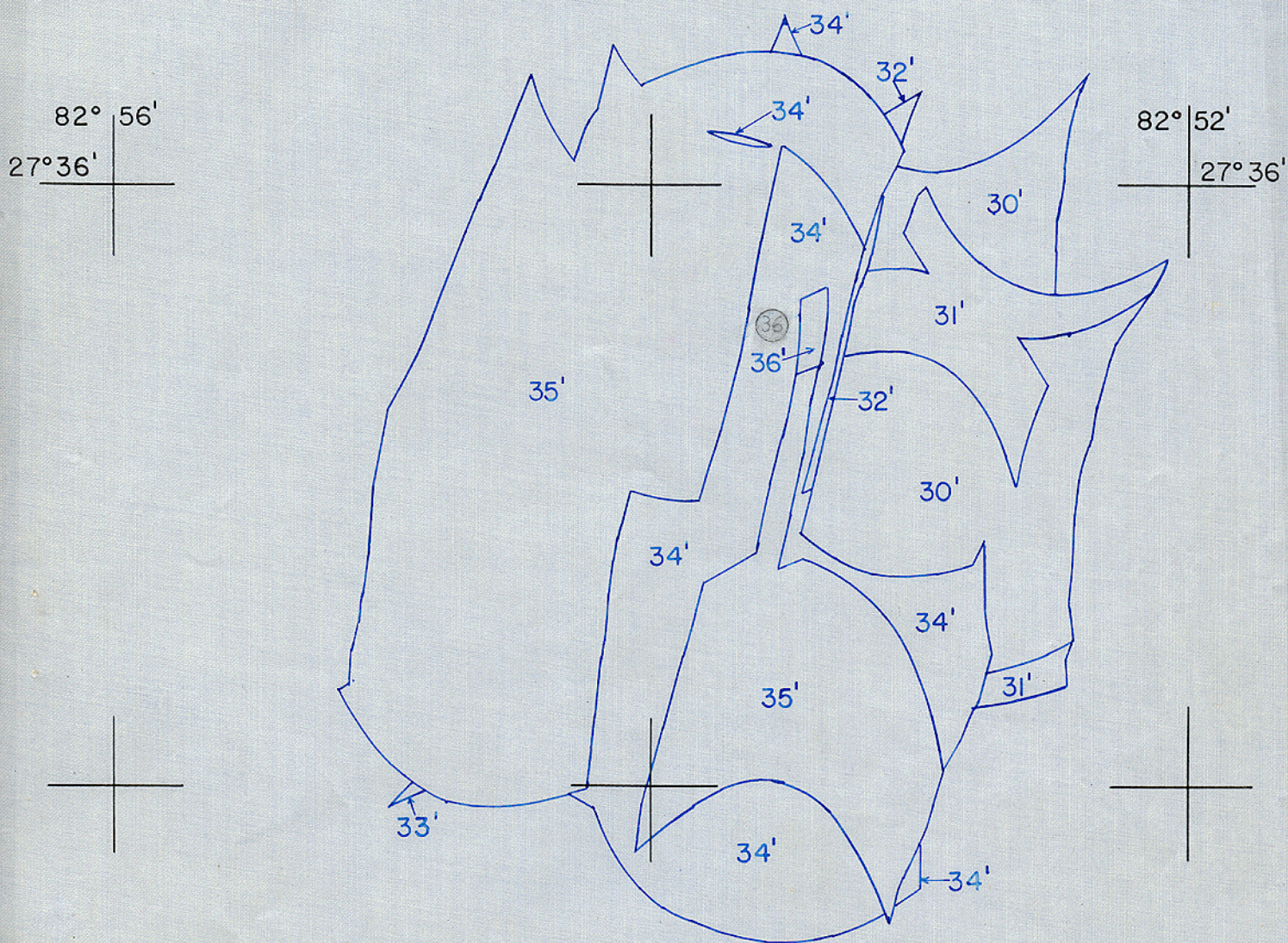
**INSTRUCTIONS** - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

**CL - Check List Items:** should be checked as having been completed during the verification processes.

**R - Report Item:** This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<b>Note:</b> The verifier should first read the Descriptive Report for general information and problems.  1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None			10. Junctions with contemporary surveys were satisfactory except as follows:  Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are <b>SUPERSEDED</b> .		
2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None			<b>Part IV - VOLUMES</b> 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes.  Remarks Required: -- None		
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None			12. Condition of sounding records was satisfactory except as follows:  Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:  (a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features		
<b>Part II - SHORELINE AND SIGNALS</b> 4. Source of shoreline signals Remarks Required: -- List all surveys  a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed			<b>Part V - PROTRACTING</b> 13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None		
5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.			14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None		
6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None			15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible.  Remarks Required: -- None		
7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.					
<b>Part III - JUNCTIONS</b> <b>Note:</b> Make a cursory comparison preliminary to inking soundings in area of overlap.  8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None					
9. The notation in slanted lettering "JOINS H--- (19 )" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil.  Remarks Required: -- None					

Part V - PROTRACTING (Continued)		CL	R	Part VIII - AIDS TO NAVIGATION		CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.				26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey.  Remarks Required: -- Conflicts of any nature listed.			
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.				27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification.  Remarks Required: -- None			
<b>Part VI - SOUNDINGS</b> 18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None				<b>Part IX - BOATSHEET</b> 28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None			
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.				29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.			
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None				<b>Part X - GENERAL</b> 30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2).  Remarks Required: -- None			
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None				31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None			
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.				32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet.  Remarks Required: -- None			
<b>Part VII - CURVES</b> 23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.				33. The bottom characteristics are adequately shown. Remarks Required: -- None			
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None				<b>Part XI - NOTES TO THE REVIEWER</b> 34. Unresolved discrepancies and questionable soundings.			
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.				35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.			
				36. Supplemental information.			
Verified by						Date	

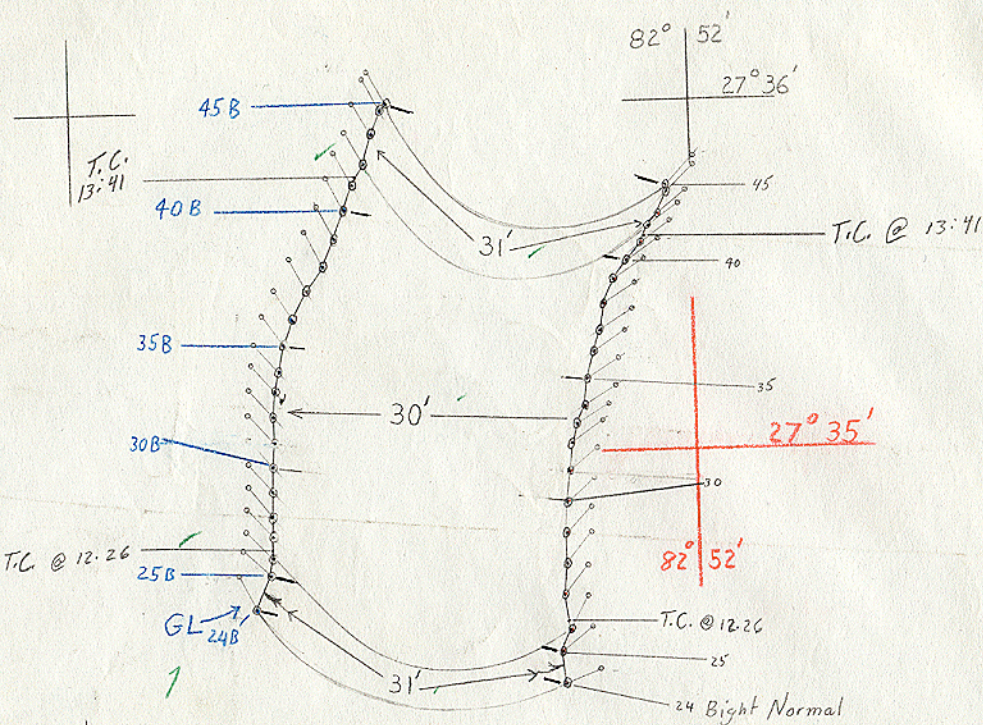


A & D SHEET  
TO ACCOMPANY  
RH-40-I-70WD

82° 56'  
27° 36'

27° 35'  
82° 55'

27° 34'  
82° 56'



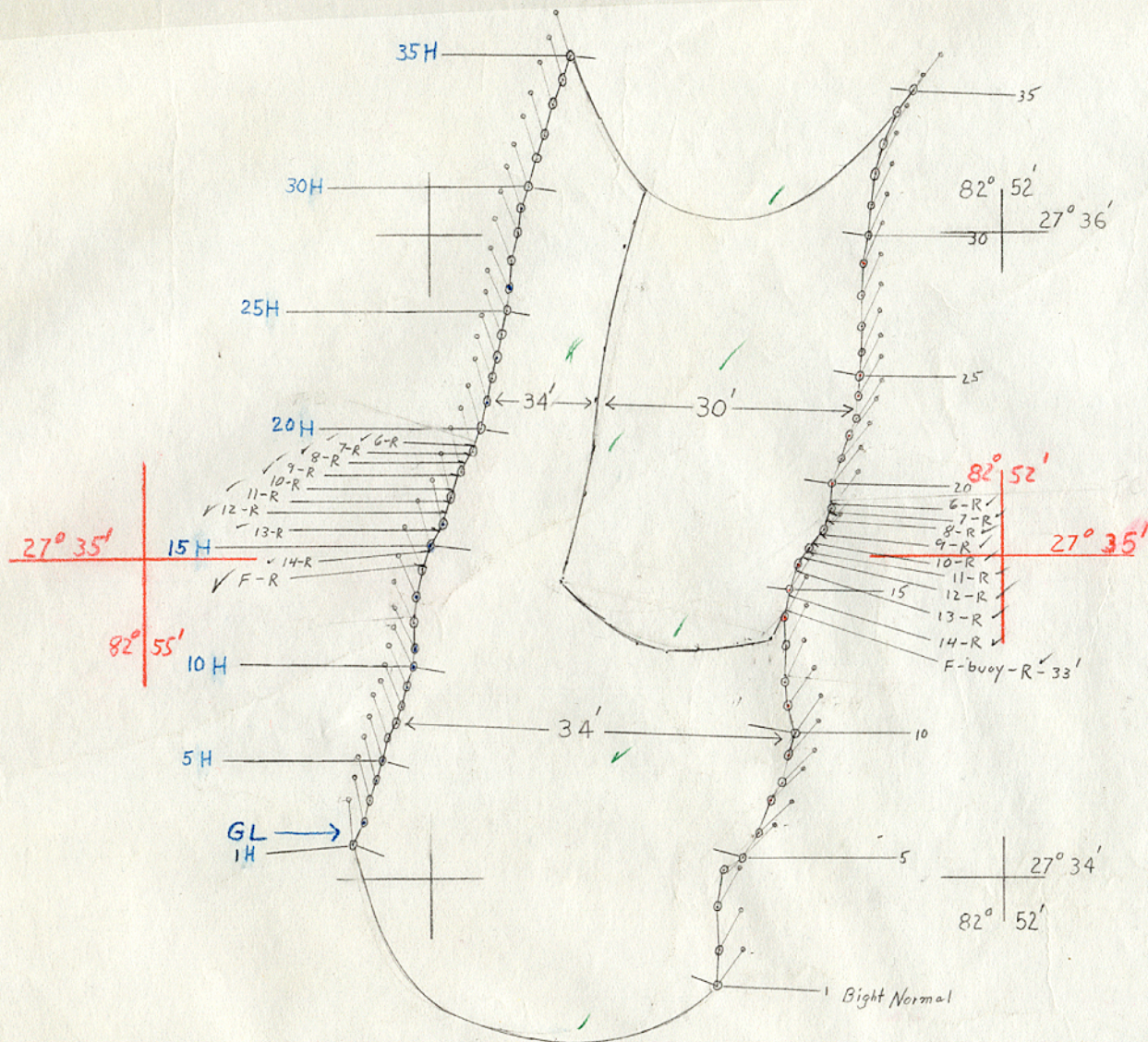
Color - All Blue

WWF

Tampa Bay  
RH-40-1-70  
"B" day pos. 24-45  
Strip #2  
GFI



82° 56'  
27° 36'

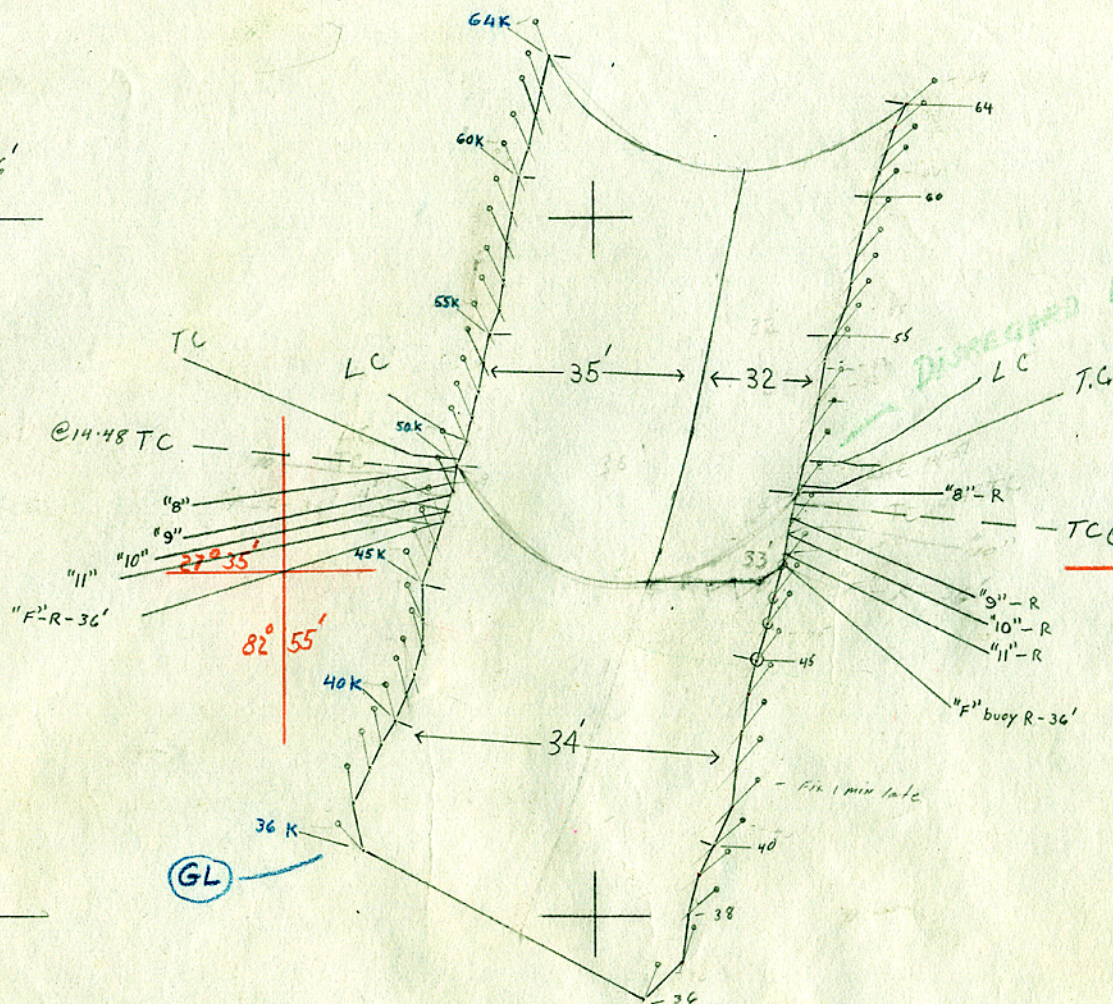


Color Blue

Tampa Bay  
"H" Day RH-40-1-70  
pos. 1-35  
strip #1  
by GMT

82° 56'  
27° 36'

82° 52'  
27° 36'

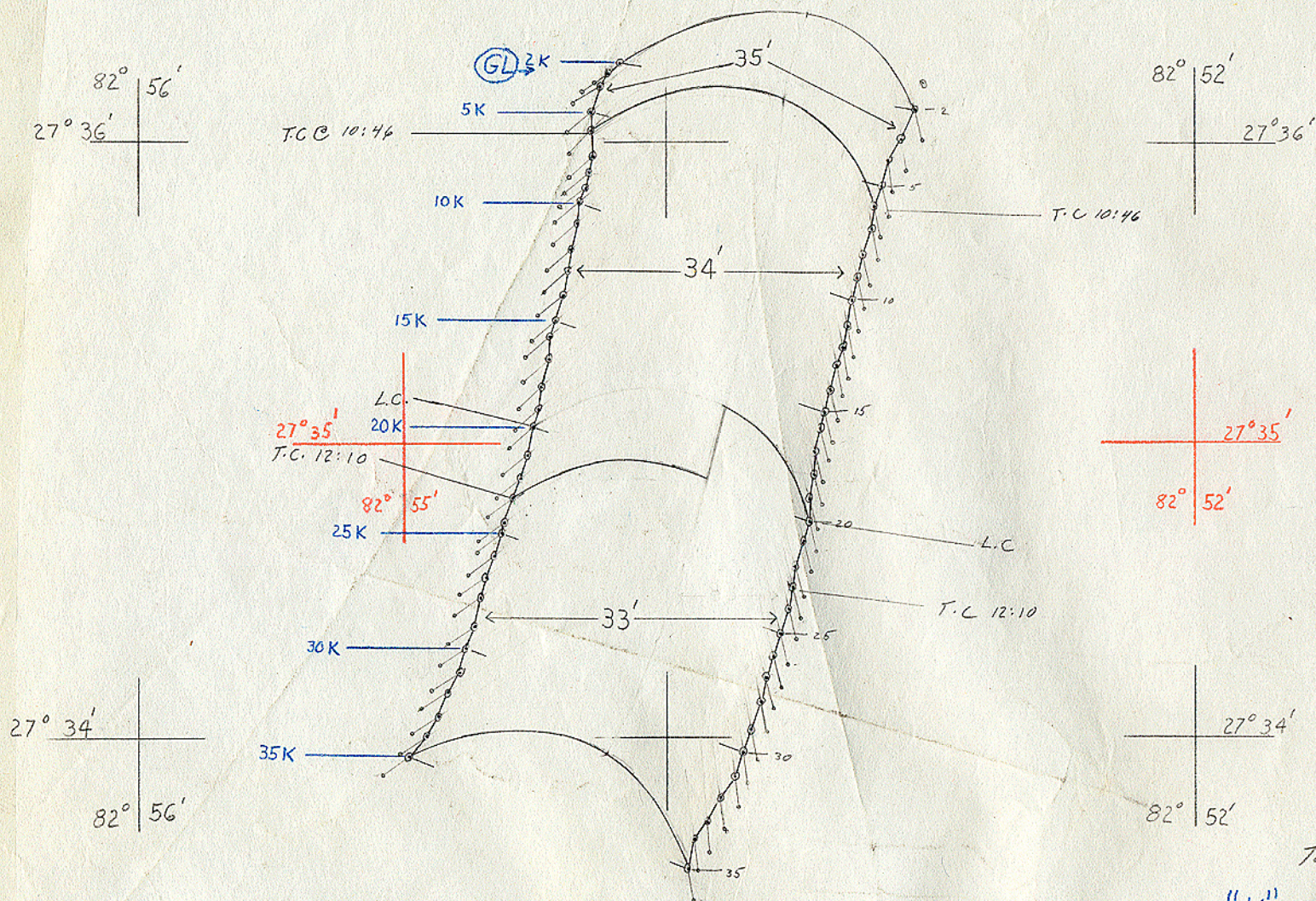


27° 34'

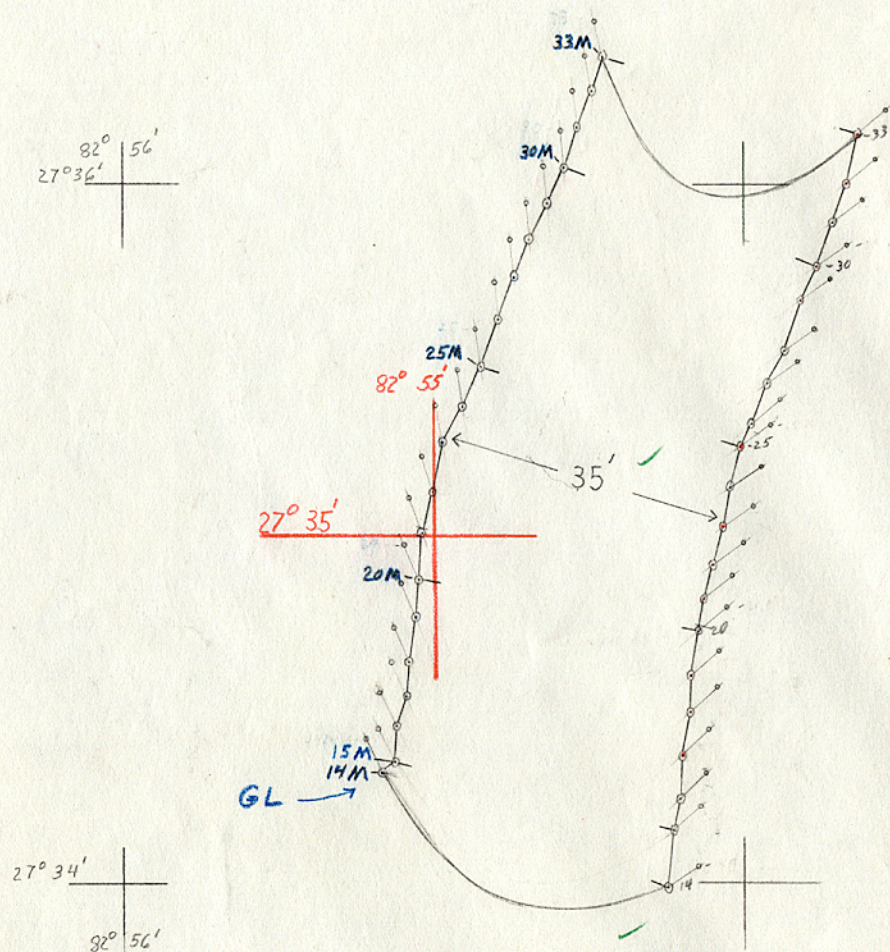
82° 52'

Color Blue

Tampa Bay  
RH-40-1-70  
"K" day pos. 36-64  
Strip #2



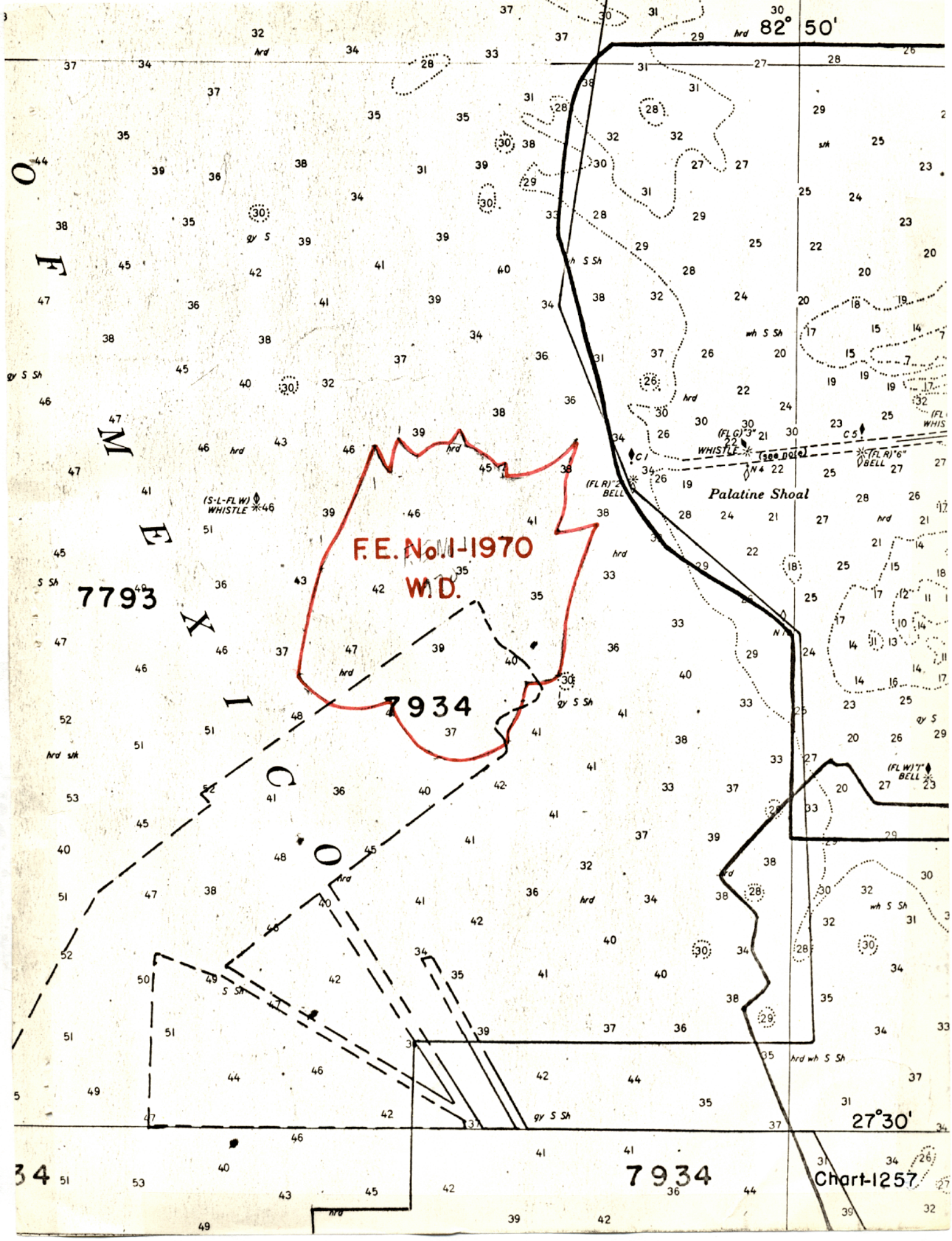
Tampa Bay  
"K"  
Day RH-40-1-70  
pos 2-35  
strip #1  
GFT



Color Blue

V WNF

RH-40-1-70  
 "M" Day Tampa Bay  
 Pos. 14-33  
 Strip # 2  
 by GFI



F.E. No 1-1970  
W.D.

Palatine Shoal

Chart-1257

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. F.E.No. 1-1970 W.D.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.